

**SYSTEM FOR FORMING A SEMICONDUCTOR DEVICE AND METHOD
THEREOF**

ABSTRACT OF THE DISCLOSURE

A method for fabricating sidewall spacers in the manufacture of an integrated circuit
5 device is disclosed. A dielectric spacer layer is formed over the semiconductor substrate.
The dielectric spacer layer is etched prior to forming a layer subsequent to the dielectric
layer, to form an L-shaped spacer. In another embodiment, a structure is formed on a
substrate, the structure having a sidewall portion that is substantially orthogonal to a surface
of the substrate. A dielectric layer is formed over the substrate. A spacer is formed over a
10 portion of the dielectric layer and adjacent to the sidewall portion of the structure, wherein
at least a portion of the dielectric layer over the substrate without an overlying oxide spacer
is an unprotected portion of the dielectric. At least a part of the unprotected portion of the
dielectric layer is removed. An intermediate source-drain region can be formed beneath a
portion of the L-shaped spacer by controlling the thickness and/or the source drain doping
15 levels.